

What is claimed is:

1. A liquid crystal display device comprising:
a liquid crystal display panel; and
a picture signal line driving circuit for supplying
5 a picture signal voltage to the liquid crystal display
panel; said picture signal line driving circuit having
a switching circuit in which a first transistor, to whose
gate electrode a control voltage is applied, and a second
transistor, to whose gate electrode a bias voltage is
10 applied, are connected in series.

2. The liquid crystal display device according to
claim 1, wherein a first bias voltage is applied to the
gate electrode of the second transistor and a second
bias voltage is applied to a well layer provided with
15 the first and the second transistors.

3. The liquid crystal display device according to
claim 1, wherein the first and the second transistors
are first conducting-type transistors, and a second
conducting-type transistor is connected to the first
20 transistor in parallel.

4. The liquid crystal display device according to
claim 1, wherein the potential of the input terminal of
the first transistor is equal to the potential applied
to the well layer provided with the first and the second

FIG 19

transistors.

5. A liquid crystal display device, comprising a liquid crystal display panel and a picture signal line driving circuit for supplying a picture signal voltage to the liquid crystal display panel; said picture signal line driving circuit further including:

a first input terminal, a second input terminal, and a common output terminal,

a first switching element connected between the first input terminal and the common output terminal, and

a second switching element connected between the second input terminal and the common output terminal,

the first and second switching elements including a transistor at ^{an} input port, to whose gate electrode a control voltage is applied, connected in series with a transistor at ^{an} output port, to whose gate electrode a bias voltage is applied.

6. The liquid crystal display device according to claim 5, wherein the bias voltage applied to the gate electrode of the transistor at the input port is different from the bias voltage applied to a well layer provided with the transistor at the input port and the transistor at the output port.

7. The liquid crystal display device according to

claim 5, wherein the transistor at the input port and the transistor at the output port of the first switching element are first conducting-type transistors, the transistor at the input port and the transistor at the output port of the second switching element are second conducting-type transistors, and the second conducting-type transistor is connected to the transistor at the input port of the first switching element in parallel and the first conducting-type transistor is connected to the transistor at the input port of the second switching element in parallel.

8. The liquid crystal display device according to claim 5, wherein the potential of the input terminal of the transistor at the input port ^{is} applied to the well layer provided with the transistor at the output port.

9. A liquid crystal display device, comprising a liquid crystal display panel and a picture signal line driving circuit for supplying a picture signal voltage to the liquid crystal display panel; the picture signal line driving circuit further comprising:

a first output circuit for outputting a positive-polarity picture signal voltage,

a second output circuit for outputting a negative-polarity picture signal voltage, and

a switching circuit for switching the positive-polarity picture signal voltage supplied from the first output circuit and the negative-polarity picture signal voltage supplied from the second output circuit to a pair of picture signal lines and outputting the voltages, the switching circuit further including :

a first switching element connected between the first output circuit and the first picture signal line of the picture signal line pair,

a third switching element connected between the first output circuit and the second picture signal line of the picture signal line pair,

a second switching element connected between the second output circuit and the second picture signal line, and

a fourth switching element connected between the second output circuit and the first picture signal line,

wherein a positive-polarity picture signal voltage supplied from the first output circuit is output to the first or second picture signal line by selectively turning on/off the first, second, third, and fourth switching elements,

a negative-polarity picture signal voltage supplied from the second output circuit is output to the second

or first picture signal line by selectively turning on/off the first, second, third, and fourth switching elements,

and the switching elements are constituted by
5 connecting a transistor at ^{an} output circuit side to whose gate electrode a control voltage is applied in series with a transistor at ^a picture signal line side to whose gate electrode a constant bias voltage is applied.

10. The liquid crystal display device according to
10 claim 9, wherein the bias voltage applied to the gate electrode of the transistor at the picture signal side is different from the bias voltage applied to a well layer provided with a transistor at ^{an} output port and a transistor at ^a picture signal side.

15 11. The liquid crystal display device according to claim 9, wherein the transistors at the output side and the picture signal side of the first and third switching elements are first conducting-type transistors and the transistors at the output port and the picture signal
20 side of the second and fourth switching elements are second conducting-type transistors, and the second conducting-type transistors are connected in parallel with the transistors at the output port of the first and third switching elements and the first conducting-type

transistors are connected in parallel with the transistors at the output port of the second and fourth switching elements.

- 5 12. The liquid crystal display device according to claim 9, wherein the potential of the input terminal of the transistor at the output circuit side is equal to the potential applied to the well layer provided with the transistor at the picture signal line side.

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